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**BASIC STEPS TAKEN AGAINST THE MOST IMPORTANT
INFECTIOUS DISEASES IN THE KAZAK SSR IN THE FIFTY YEARS OF SOVIET RULE**

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BASIC STEPS TAKEN AGAINST THE MOST IMPORTANT
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In marking the renowned fiftieth anniversary celebration of the first socialist government in the world, all of us, the Soviet people, with a feeling of rightful pride in our wonderful fatherland supply the results of victory which has been won in our country under the leadership of the Leninist party.

This victory is clearly apparent and in the incidence of Kazak, which has been transformed in a short historical period from the backward outskirts of tsarist Russia with feudal-patriarchal way of life to the foremost socialist republic with vigorous contemporary industry and developed agriculture.

Hunger, poverty, and epidemics took tens of thousands of lives every year in pre-revolutionary Kazak. Morbidity from small pox was constantly maintained at a high level. Vaccinations against small pox had covered an insignificant part of the population, since it was not reached by the medical staffs and vaccination material.

In the western part of Kazak, in the Kirghiz (Kazak) steppes, people were cut down by plague. Thus, for example, in 1904 407 cases of plague were registered. And, how many people in the villages died of unknown causes, without medical assistance! But then, medical institutions were only in the towns, which, as a rule, cared for tsarist officials, feudal lords, and rich land owners.

The constant threat of spread of plague in the central part of Russia and the urgent recommendation of progressive Russian scientists I. I. Mechnikov, D. K. Zabolotniy, and others, compelled the tsarist government in 1913 to establish an anti-plague organization in Kazak, but it was too powerless to prevent plague epidemics.

In 1892 in the territories of the former Akmolinsk, Semipalatinsk, Turgaysk, and Ural'sk counties, 8,521 cholera patients were registered, and out of this number 4,384 died. Outbreaks of cholera arose in the Kazak territory in 1894, 1900-1901, 1904-1905, and subsequent years. There was high morbidity from typhoid fever, exanthemous fever, and recurrent typhus, dysentery, malaria, and childhood infections.

After the establishment of Soviet rule in Kazak, reorganization of medical services of the population was begun based on the principles stated in the program of the communist party, accepted at the eighth convention in 1919.

Before creation in 1920, of a public health service, the autonomous Kirghiz (Kazak) Republic was faced with a complex task--carrying out the struggle against widely distributed infectious diseases. But then, in the territory of pre-revolutionary Kazak there were all of 196 doctors. While the central districts of Russia at the end of the 19th century already had a sanitary organization during the Zemstvo self-government in the rural areas and in the large towns, in Kazak there was not a single sanitary doctor. No one was working on the problems of public welfare in the population centers.

The first sanitary-bacteriological laboratory was organized in 1920 in the Petropavlovsk and Orenburg (the former capital of Kazak). In 1928 the first anti-malaria station was created. In 1930 at the tenth anniversary of the Kazak SSR, there were 12 sanitary-bacteriological laboratories, 6 anti-malaria stations, 11 anti-malaria dispensaries, and 2 disinfection stations.

The first sanitary-epidemiological station began to be organized in Kazak in 1937. The number of them rapidly increased and in 1940 they already numbered 44. Along with these, in 1940, 61 anti-malaria stations were functioning, 38 anti-malaria dispensaries, 22 disinfection stations, 13 anti-brucellosis stations and 23 milk control dispensaries.

In 1925 in Kzyl Orda, then capital of Kazak, a sanitary-bacteriological institute was created, which was later transferred to Alma Ata and renamed the Kazak Institute of Epidemiology and Microbiology. This institute, and also the regional anti-malaria station which was organized later, and the republican anti-brucellosis station carried out the organizational-methodological leadership in the struggle against infectious diseases in the republic, carried out specialization of staff for the sanitary-epidemiological institutions, scientific research work, and at the institution, moreover, manufactured bacterial preparations, required for carrying out preventive vaccinations.

In 30 years, the morbidity from many of the infections has been reduced, and a series of nosological forms has been eliminated.

From 1935, measures have been widely developed in combatting malaria, which was given general public importance.

Large hydrotechnical works, extermination of carriers, active detection and treatment of patients--all of these led to more than two-fold reduction of morbidity from malaria in 1940. The level of morbidity from other infectious diseases also decreased until the beginning of World War II. Despite the difficulty of wartime, the sanitary organization of Kazak in the years of World War II continued to be strengthened.

In 1943 a sanitary-hygienic faculty was organized at the Alma Ata Medical Institute, which prepared sanitary doctors for the republic. The Kazak Institute of Epidemiology and Microbiology was populated with qualified specialists.

In the World War II period in Kazak, no epidemics arose, like those which had accompanied all previous wars.

The post war years were marked by new successes in combatting infectious diseases. Thus, in 1948 recurrent typhus was eradicated. As a result of systematic works, morbidity from malaria steadily decreased. Although in 20 years malaria had killed 513,096 persons in the territory of Kazak, from 1962 to 1964 120 cases of malaria were registered, while 85 of them were brought from countries not free from malaria. In 1966, 6 persons died from malaria, and of these 4 arrived from countries not freed from malaria (Mali and Afghanistan) and 2 were local inhabitants of bordering districts of the Alma Ata region.

For the republic, where animal husbandry was strongly developed, the study of various problems of zoonotic diseases had great importance, especially brucellosis. In Kazak, with the cooperation of specialists of the Scientific Research Institute of Epidemiology and Hygiene, the cutaneous method of specific prophylaxis of brucellosis was approved first (I. K. Karakulov, N. F. Zenkova, S. M. Smirnov, B. R. Uzbekova, M. F. Shmutter, et al), which at present is fundamental both in the USSR and in a series of foreign countries. The use of this method lead to a reduction in human morbidity from brucellosis. At the present time, the task of sharply reducing the morbidity of brucellosis in people is fundamentally connected with the eradication of brucellosis among farm animals.

The task of further sharp reduction of one and eradication of the other infectious disease was determined in 1960 by the well-known Decree of the Central Committee of the Communist Party of the Soviet Union and the Soviet Ministry of the USSR "on measures for further improvement of medical services and preservation of the health of the population of the USSR." In a similar decree, received in the Kazak SSR, great significance was placed on measures associated with sanitary conditions (expansion of sewage, improvement of water supply, decontamination of population centers, construction of baths, etc.), which various ministries and apartments were obliged to put into practice. Successful completion of the programs mentioned significantly changed the appearance of our towns and villages.

A highly effective live vaccine against poliomyelitis, obtained and introduced in our country by M. P. Chumakov and A. A. Smorodintsev, gave brilliant results in Kazak. Although in 1951, to 1954, significant outbreaks of poliomyelitis were noted in a series of towns in the republic, with the introduction of prophylactic immunization, morbidity rapidly decreased to sporadic cases, and in 1966 not a single case was registered. Observations carried out by the virological department of the Kazak Institute of Epidemiology and Microbiology showed curtailed circulation of poliomyelitis virus among the population.

From 1960, systematic measures were intensively carried out in Kazak, directed towards reduction and eradication of morbidity from diphtheria.

From 1961, vaccinating cabinets began to be generally organized, whose importance in adjusting estimates of the child population, planning and implementing prophylactic vaccinations is indisputable. At the present time, there are 780 functioning vaccinating cabinets in the republic, and 529 vaccinating stations (in villages). In connection with the difficulties of vaccinations of livestock driven away in remote parts, mobile vaccinating teams began to be created. With the aim of improving medical service to the child population the pediatric sections were subdivided. Extensive work was carried out in obtaining laboratory diagnosis of diphtheria; now, the isolated of a pure culture of the diphtheria microbe and determination of its toxigenicity is cooperatively carried out. Isolated cultures are sent to regional laboratories from the district sanitary-bacteriological laboratories where there are no doctor-bacteriologists. Analysis of the vaccination of children against diphtheria in the age group was carried out in all regions twice a year. The results of the work were considered in the medical board of the regional department of public health in conferences and seminars.

The implementation of the complex of measures noted led to a 26-fold reduction in morbidity from diphtheria in Kazak in 1966 in relation to 1959. The reduction continued in 1967.

Prophylactic immunization of the child population also led to the sharp reduction of morbidity from whooping cough (11-fold in 1966 compared to 1959).

In the Kazak territory, there are extensive natural sources of tularemia, and every year the causative agents of this disease are isolated from rodents. In the past, outbreaks of tularemia have arisen in the territories indicated. Now, as a result of vaccinations to protect the population residing in the natural sources, and also persons coming

there at times (in construction, harvesting of produce, and geological parties, etc.), over the course of a series of years a satisfactory status of this infection is already being maintained.

Measures directed toward reduction and eradication of infectious diseases, are widely practiced by a network of medical stations, but the basic organizing role belongs to the sanitary-epidemiological service. In 1965, in Kazak there were 273 sanitary-epidemiological stations and sanitary-epidemiological departments of the regional hospitals, among them, 248 in the system of the ministry of public health of the Kazak SSR; in 1966 the number of the latter had increased to 258. Every town and village of the region has its own sanitary-epidemiological station. In the republic, there are 8 disinfection stations and 170 departments of prophylactic disinfection. In subsequent years the material basis for the sanitary-epidemiological stations significantly decreased, new ones were constructed and old buildings were reconstructed, laboratories received much apparatus and equipment, the supply of nutritive substances improved. Qualitative criteria of laboratory work increased.

Provision of sanitary doctors increased immeasurably in the republic. In 1921, there were in all 6 sanitary doctors, in 1940 the number of doctors of sanitary-epidemiological profile had reached 169, in 1950--511, 1959--1,284, and in 1965--1,757.

Great attention was focused on the increased qualifications of sanitary doctors, which was carried out both at the Alma Ata Institute of the Advancement of Doctors, and also in the central towns of the country. In just three years (1964 to 1966) 421 doctors went through specialization and advancement at the institute. Moreover, every year preparation of doctors was carried out in seminars and work sites in the institute and at the republican sanitary-epidemiological stations.

The preparation of sanitary assistants was significantly broadened. At the present time, in the sanitary departments at 11 medical schools of the republic, 1,005 persons are taught. And, every requirement of the sanitary doctors and sanitary assistants is not completely satisfied.

Sanitary doctors extensively use the public in their work, attracting it for the practice of current inspection of living quarters in the territory, the undertaking of social nutrition and commerce, and also measures directed toward reduction of morbidity of the population. At the present time in Kazak there are 3,380,000 persons in the Red Cross society, 74,000 public sanitary inspectors, 95,000 active members.

The republican and regional house of sanitary instruction annually distributes a large quantity of leaflets, brochures, placards on the question of prophylaxis of infectious diseases. Doctors systematically come forward on radio, television, in print.

Colleagues of the Ministry of Public Health of the Kazak SSR constantly turn their attention to questions of reduction and eradication of infectious diseases and to curtailment of sanitary services.

The former colonial Kazak under the leadership of our parties, with the help of brother nations, especially of the great Russian people, has now become the foremost republic not only in the level of its economy and culture, but also in the organization of national public health and development of medical science. The presence in Kazak of 11 medical scientific research institutes, 5 medical colleges and an institute of advancement of doctors indicates this.

Public health organs, scientists and practicing doctors of Kazak, not stopping their efforts, have set themselves the task of achieving further reduction and eradication of infectious diseases in the next few years.